Devices (PLDs)) used to provide machine instructions and/or data to a programmable processor, including a machine-readable medium that receives machine instructions as a machine-readable signal. The term "machine-readable signal" refers to any signal used to provide machine instructions and/or data to a programmable processor.

To provide for interaction with a user, the systems and techniques described here can be implemented on a computer having a display device (e.g., a CRT (cathode ray tube) or LCD (liquid crystal display) monitor) for displaying information to the user and a keyboard and a pointing device (e.g., a mouse or a trackball) by which the user can provide input to the computer. Other kinds of devices can be used to provide for interaction with a user as well; for example, feedback provided to the user can be any form of sensory feedback (e.g., visual feedback, auditory feedback, or tactile feedback); and input from the user can be received in any form, including acoustic, speech, or tactile input.

The systems and techniques described here can be implemented in a computing system that includes a back end component (e.g., as a data server), or that includes a middleware component (e.g., an application server), or that includes a front end component (e.g., a client computer having a graphical user interface or a Web browser through which a user can interact with an implementation of the systems and techniques described here), or any combination of such back end, middleware, or front end components. The components of the system can be interconnected by any form or medium of digital data communication (e.g., a communication network). Examples of communication networks include a local area network ("LAN"), a wide area network ("WAN"), and the Internet.

The computing system can include clients and servers. A client and server are generally remote from each other and typically interact through a communication network. The relationship of client and server arises by virtue of computer programs running on the respective computers and having a client-server relationship to each other.

In addition, the logic flows depicted in the figures do not require the particular order shown, or sequential order, to achieve desirable results. In addition, other steps may be provided, or steps may be eliminated, from the described flows, and other components may be added to, or removed from, the described systems. Accordingly, other implementations are within the scope of the following claims.

What is claimed is:

1. A method comprising:

receiving, at data processing hardware of a mobile device, an interaction indication indicating a user interaction with a button of the mobile device;

in response to receiving the interaction indication:

initiating, by the data processing hardware, execution of an audio recording process using a microphone of the mobile device; and

notifying, by the data processing hardware, a user of the mobile device when execution of the audio recording process starts by:

generating a visual notification that indicates to the user when execution of the audio recording process starts; and

displaying the visual notification on a user interface of the mobile device, wherein the visual notification comprises a waveform graphic;

receiving, at the data processing hardware, a speech utterance from the user captured by the microphone during execution of the audio recording process; and

generating, by the data processing hardware, a transcription of the speech utterance captured by the microphone during the audio recording process.

2. The method of claim **1**, wherein notifying the user of the mobile device when execution of the audio recording process starts comprises:

generating an audio notification that indicates to the user when execution of the audio recording process starts; and

outputting the audio notification through an audio output device of the mobile device.

3. The method of claim **1**, further comprising, in response to receiving the speech utterance of the user captured by the microphone during execution of the audio recording process:

generating, by the data processing hardware, a visual notification that indicates detection of the speech utterance of the user; and

displaying, by the data processing hardware, the visual notification on a user interface of the mobile device.

4. The method of claim **1**, wherein receiving the speech utterance of the user comprises:

receiving audio input data captured by the microphone during execution of the audio recording process;

determining whether the audio input data captured by the microphone exceeds a speech energy threshold; and

when the audio input data captured by the microphone exceeds the speech energy threshold, detecting that the audio input data includes the speech utterance of the user.

5. The method of claim **1**, further comprising, in response to initiating execution of the audio recording process:

determining, by the data processing hardware, a speech energy threshold for comparing to the speech utterance of the user received during execution of the audio recording process; and

ceasing, by the data processing hardware, execution of the audio recording process when an energy of the speech utterance of the user received during the audio recording process is less than the speech energy threshold.

6. The method of claim **1**, further comprising:

determining, by the data processing hardware, when execution of the audio recording process ceases; and

in response to determining when execution of the audio recording process ceases, displaying, by the data processing hardware, a visual notification on a user interface of the mobile device, the visual notification indicating to the user that execution of the audio recording process has ceased.

7. The method of claim **1**, further comprising:

determining, by the data processing hardware, when execution of the audio recording process ceases; and

in response to determining when execution of the audio recording process ceases, outputting, by the data processing hardware, an audio notification through an audio output device of the mobile device, the audio notification indicating to the user that execution of the audio recording process has ceased.

8. The method of claim **1**, further comprising:

determining, by the data processing hardware, when execution of the audio recording process ceases; and

in response to determining when execution of the audio recording process ceases, outputting, by the data processing hardware, tactical feedback through the mobile device, the tactical feedback indicating to the user that execution of the audio recording process has ceased.